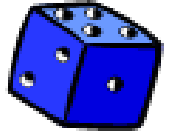


**10.2**

# **Probability**

# **Do Now**

1. Is rolling an even number on a number cube an outcome or an event? Explain.



2. Describe how an outcome and a favorable outcome are different.

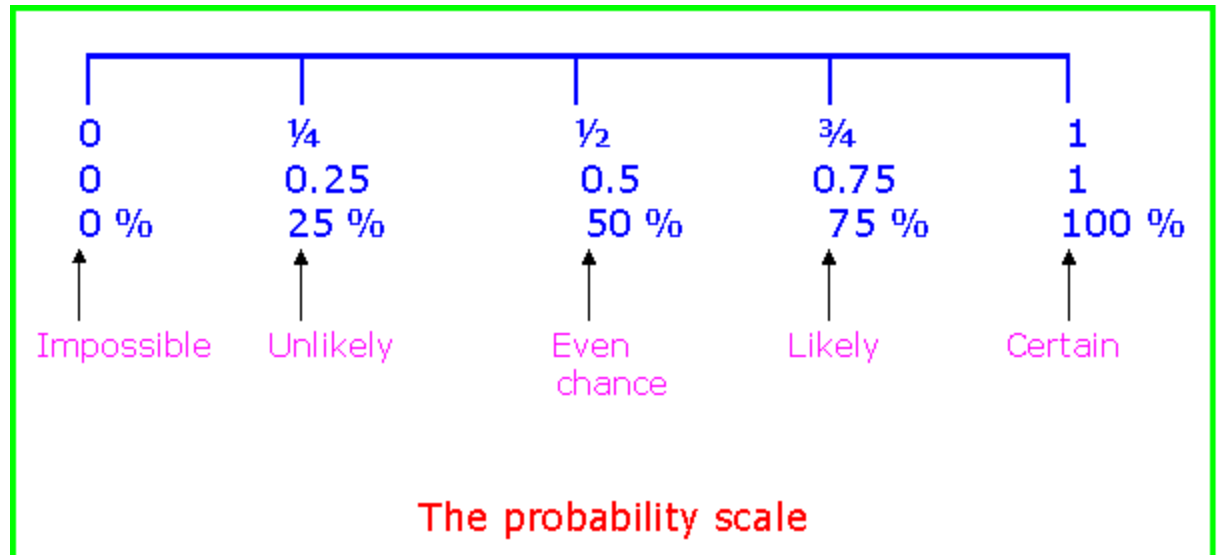
# Learning Target:

- I can understand the concept of probability and the relationship between probability and likelihood.
- I can find probabilities of events.

## Key Ideas:

Probability: of an \_\_\_\_\_ is a \_\_\_\_\_ that measures the \_\_\_\_\_ that the event will occur.

Probabilities are between \_\_\_\_ and \_\_\_\_, \_\_\_\_\_ 0 and 1.



*\*probabilities can be written as fractions, decimals, or percents*

# Describing the Likelihood of an Event



There is an 80% chance of thunderstorms tomorrow. Describe the likelihood of the event.

## ***Practice:***

*Describe the likelihood of the event given its probability.*

- 1) The likelihood that you land a jump on a snowboard is  $\frac{1}{2}$ .
  
- 2) There is a 100% chance that the temperature will be less than 120°F tomorrow.

# Finding the Probability of An Event

When all possible \_\_\_\_\_ are equally \_\_\_\_\_, the \_\_\_\_\_ of the \_\_\_\_\_ is the ratio of the number of \_\_\_\_\_ to the number of \_\_\_\_\_.

the probability of an event is written as **P(event)**.

$$P(\text{event}) = \frac{\text{number of favorable outcomes}}{\text{number of possible outcomes}}$$



## ***Practice:***

- 3) What is the probability of rolling a number greater than 2?
- 4) What is the probability of rolling a 7?

# Using Probability

The probability that you randomly draw a short straw from a group of 40 straws is  $\frac{3}{20}$ . How many are short straws?

(A) 4

(B) 6

(C) 15

(D) 34



## ***Practice:***

5) The probability that you randomly draw a short straw from a group of 75 straws is \_\_\_\_\_. How many are short straws?